

IN THE CLAIMS

1. – 31 (Cancelled)

32. (Currently amended) A method of providing, for any selected period of time, heated and humidified gas into a patient for a medical procedure comprising the steps of:

- a) directing a gas from a gas source into a chamber;
- b) humidifying the gas within the chamber with a volume of liquid;
- c) sensing the humidity of the gas as it exits the chamber; and
- d) monitoring the humidity of the gas exiting the chamber, and
- e) detecting when the humidity of the gas is below a predetermined  
humidity level

33. (Currently amended) The method of claim 32, ~~wherein the step of monitoring further comprising~~ compromises determining when the volume of liquid in the chamber requires replenishing based on the humidity of the gas in the chamber.

34. (Currently Amended) The method of claim 33, wherein the step of ~~determining detecting comprises determining~~ when the relative humidity of the gas in the chamber drops below a predetermined relative humidity threshold.

35. (Original) The method of claim 33, and further comprising the step of generating an alarm when it is determined that the volume of liquid in the chamber requires replenishing.

36. (Original) The method of claim 35, and further comprising the step of recharging the chamber with liquid in response to the alarm.

37. (Original) The method of claim 35, wherein the alarm is continued until it is determined that the chamber has been replenished with liquid based on the humidity of the gas in the chamber.

38 (Previously Presented) The method of claim 32, and further comprising the step of generating an audio and/or visible alarm when it is determined that the humidity of the gas in the chamber drops below a critical relative humidity threshold.

39 (Original) The method of claim 32, and further comprising steps of:  
heating the gas within the chamber with a heating element;  
sensing the temperature of the gas as it exits the chamber; and  
controlling electrical power to the heating element so as to regulate the temperature of the gas as it exits the chamber.

40. (Original) The method of claim 39, and further comprising the step of terminating electrical power to the heating element when it is determined that the humidity of the gas in the chamber drops below a critical relative humidity threshold.

41. (Original) The method of claim 39, wherein the step of humidifying and the step of heating are performed on the gas substantially simultaneously within the chamber.

42. (Original) The method of claim 39, wherein the step of sensing the humidity and sensing the temperature are performed in the flow path of the gas downstream from the steps of heating and humidifying in the chamber.

43. (Original) The method of claim 32, and further comprising the step of positioning the chamber immediately adjacent the patient.

44. (Original) The method of claim 32, and further comprising the step of filtering the gas prior to the step of humidifying.

45. – 52        (Cancelled)

53.        (New) A method for providing humidified gas to a patient for a medical procedure such that the humidity of the gas is monitored throughout the procedure, comprising the steps of:

- a)        directing a gas from a gas source into a chamber;
- b)        humidifying the gas within the chamber with a volume of liquid;
- c)        sensing the humidity of the gas as it exits the chamber; and
- d)        monitoring the humidity of the gas exiting the chamber, and
- e)        detecting when the humidity of the gas is below a predetermined humidity level

54. (New) A method for providing humidified gas to a patient for a medical procedure such that heat loss in transfer of the gas is minimized, and such that the humidity of the gas is monitored throughout the procedure, comprising the steps of:

- a) providing a chamber immediately adjacent the patient;
- b) directing a gas from a gas source into the chamber;
- c) humidifying the gas within the chamber with a volume of liquid;
- d) sensing the humidity of the gas as it exits the chamber; and
- e) monitoring the humidity of the gas exiting the chamber, and
- f) detecting when the humidity of the gas is below a predetermined humidity level.

55. (New) A method for providing heated and humidified gas to a patient for a medical procedure such that heat loss in transfer of the gas is minimized, and such that the humidity of the gas is monitored and the temperature of the gas is controlled throughout the procedure, comprising the steps of:

- a) providing a chamber immediately adjacent the patient;
- b) directing a gas from a gas source into the chamber;
- c) humidifying the gas within the chamber with a volume of liquid;
- d) controlling the temperature of the gas within the chamber substantially simultaneously with humidifying the gas.
- e) sensing the humidity of the gas as it exits the chamber; and
- f) monitoring the humidity of the gas exiting the chamber, and

g) detecting when the humidity of the gas is below a predetermined  
humidity level.

(D)